BX-YQ Series User Manual

2014-5-7

Copyright

All rights reserved. No part of this publication may be reproduced in any form by print, photo print, microfilm or any other means without written permission by ONBON.

©2010-2011Onbon

Version History:

Version Number	Date	Author	Description
1.0	2014-5-7	Mr.Qin	BX-YQ Series User Manual

Catalogue

Catalogue....4
1. Product Description....5
1.1 Technical parameters....5
1.2 Screen Specification....7
2. Interface Definition....8
2.1 BX-YQ0/BX-YQ1-75 interface....8
2.2 BX-YQ1 interface....9
2.3 BX-YQ2 interface....10
2.4 Temperature&Humidity sensor interface....11
2.5 Temperature sensor interface....11
2.6 Ethernet interface....11
3. The specification of controller....15
3.1 BX-YQ0/BX-YQ1-75 specification....15
3.2 BX-YQ1 specification....15
3.3 BX-YQ2 specification....16
4. DC characteristic....17
5. Steps....18
5.1 Connect controller and computer....18
5.2 Setup controller IP address....18
5.3 Set Screen Parameters....20
5.4 Scan Configuration....22
5.5 Smart Scan configuration....22
5.6 BX-YQ2 receiving card setup....26
5.7 Edit and Send programs....27
6. Factory reset....29
7. Test led display screen....30
8. Select playing programs by button....31
8.1 Stoppage....32
8.2 FAQ....32
9. Notes....33
10. Contact us....34

BX-YQ series user manual

1. Product Description

BX-YQ series control cards support video, graphic, text, etc; Support multi programs, multi areas; Support remote managing programs; Support Ethernet communication cluster management; Support uploading programs by flash/U disk, support playing programs by USB, SD card; Support -40℃～80℃ wide environment temperature. Stable performance, simple installation and operation, with high cost performance; Widely used on kinds of LED full color display screens and LED media full color cluster display systems.

There are four models for BX-YQ series controller:

- BX-YQ0
- BX-YQ1
- BX-YQ1-75
- BX-YQ2

1.1 Technical parameters

Storage	4GByte
Screen types	All kinds of full color screens
Software functions	Groups cluster management/multi-program editing/multi-area display/multi-language version
Program types	Normal/Shared program
Program quantity	Support 512 programs, each program with 8 areas
Area type	Graphic/subtitle/video/time/clock/timer/temperature/temperature & humidity/weather forecast
Frame mode	The colorful and active area frame
Time mode	Dial/in Chinese and English/timer (all support multi-groups)
Communication mode	Support 100M Ethernet and 3G wireless sending
Interface	BX-YQ0/ BX-YQ1-75: 12 nos T75，24 nos RGB data BX-YQ1: 2 nos 50PIN
Sensors Supported	Temperature/temperature & humidity
Remote control	Select program/lock screen/brightness adjustment/power on & off/screen test
Bright regulation	8 grades brightness, support manual and auto-timing adjustment/software adjustment/remote control
Power on/off mode	Support auto-timing power on & off/software power on & off/remote control
Working Voltage	5V(3.5V-6V wide voltage; we suggest supply power alone to the card)
Maximum power	≤4W
Environment	-40℃～80℃

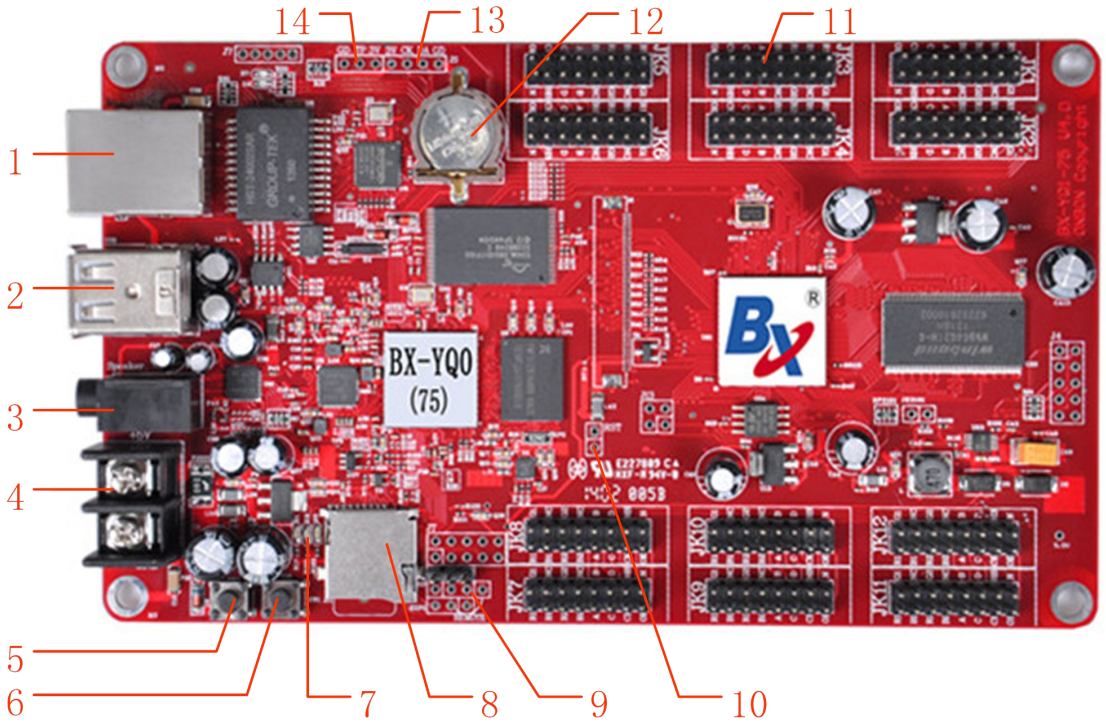
Temperature	
SDK	support DLL, or part of the protocol
Software	LedshowYQ 2014
User Manual	BX-YQ Series User Manual

1.2 Screen Specification

Product Model	Control size	Screen Specification	Description
BX-YQ0	192*384	128*128 192*256 192*384	12 nos T75，24 nos RGB data，Maximum Width: 192 pixels; Maximum height: 384 pixels
BX-YQ1	256*256	128*128 256*128 256*256 128*256	2 nos 50PIN
BX-YQ1-75	256*384	128*128 256*128 256*256 256*384 192*256 192*384	12 nos T75，24 nos RGB data
BX-YQ2	640*480	480*640 512*600 640*480 1024*300 2048*128	BX-V75 receiving card

2. Interface Definition

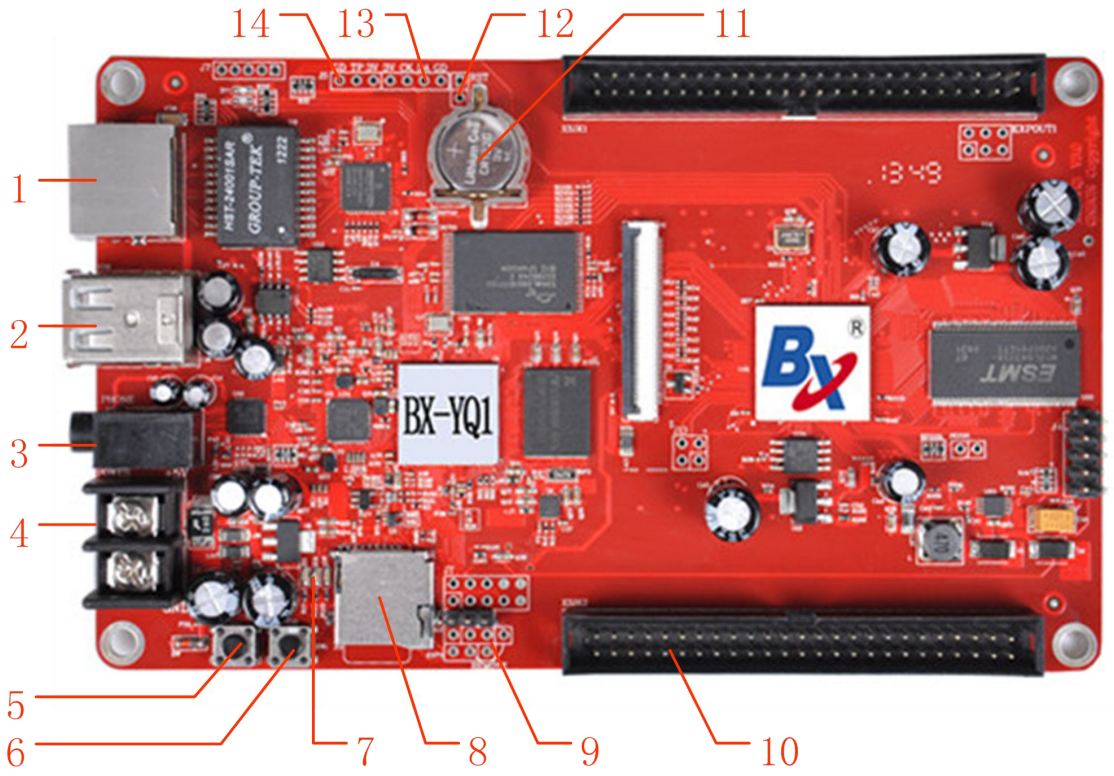
2.1 BX-YQ0/BX-YQ1-75 interface



Number	Interface name	Description
1	Gigabit Ethernet interface	Connect with computer, communication interface
2	USB interface	Offer two USB ports, you do not need to use the lower one now; the upper USB port supports upload programs by flash/U disk.
3	Audio output interface	Audio output interface
4	5V power supply interface	Wide voltage input, support 4.5V~5.5V
5	Multi function button1	1. Double click as to enter; exist testing screen mode 2. Pressing, last 10s, as to recover factory firmware
6	Multi function button 2	Double click as to enter; exist the status of playing programs
7	Status indicator light	D1 is power supply indicator light D8 is the indicator light of uploading programs by flash/U disk D9 is process running status light
8	SD card	SD card，when plug in the SD card, must turn off the power supply
9	Infrared remote controller interface	Connect IR receiver, as to control the control card by IR controller
10	Constraint restart interface	Connect, then the control card will be restarted
11	T75 display interface	T75 port
12	RTC button battery	RTC power supply battery, 3V voltage
13	Temperature&humidity sensor interface	Connect temperature&humidity sensor

14	Temperature sensor interface	Connect temperature sensor

2.2 BX-YQ1 interface



Number	Interface name	Description
1	Gigabit Ethernet interface	Connect with computer, communication interface
2	USB interface	Offer two USB ports, you do not need to use the lower one now; the upper USB port supports upload programs by flash/U disk.
3	Audio output interface	Audio output interface
4	5V power supply interface	Wide voltage input, support 4.5V~5.5V
5	Multi function button1	1. Double click as to enter; exist testing screen mode 2. Pressing, last 10s, as to recover factory firmware
6	Multi function button 2	Double click as to enter; exist the status of playing programs
7	Status indicator light	D1 is power supply indicator light D8 is the indicator light of uploading programs by flash/U disk D9 is process running status light
8	SD card	SD card，when plug in the SD card, must turn off the power supply

9	Infrared remote controller interface	Connect IR receiver, as to control the control card by IR controller
10	Constraint restart interface	Connect, then the control card will be restarted
11	T75 display interface	T75 port
12	RTC button battery	RTC power supply battery, 3V voltage
13	Temperature&humidity sensor interface	Connect temperature&humidity sensor
14	Temperature sensor interface	Connect temperature sensor

2.3 BX-YQ2 interface

Number	Interface name	Description
1	Gigabit Ethernet interface 1	Connect with computer, communication interface, control Ethernet
2	USB interface 0	Playing programs
3	USB interface 1	Do not use now
4	Audio output interface	Audio output interface
5	5Vpower supply interface	Wide voltage input, support 4.5V~5.5V
6	SD card	SD card，when plug in the SD card, must turn off the power supply
7	Gigabit Ethernet interface 2	Connect full color receiving card, scan data output Ethernet
8	Multi function button	1. Double click as to enter; exist testing screen mode 2. Pressing, last 10s, as to recover factory firmware

2.4 Temperature&Humidity sensor interface

Only support ONBON temperature&humidity sensor , below is the specification:

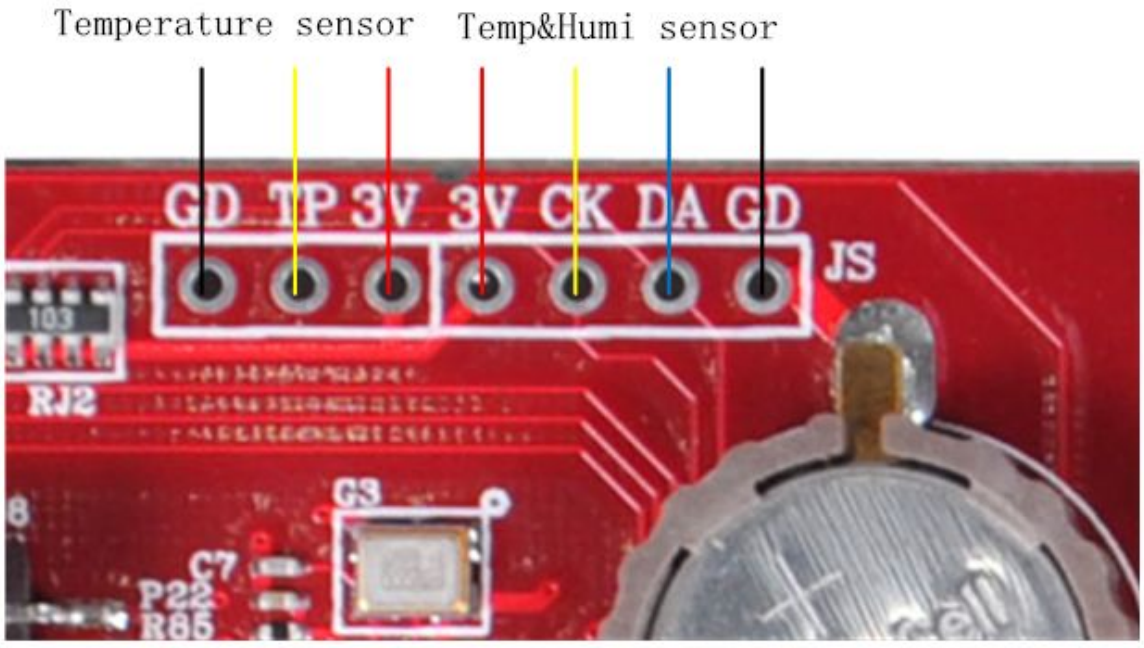
Number	Name	Description
1	GD	Ground line, connect with the black line on temperature&humidity sensor.
2	DA	Data line, connect with the blue line on temperature&humidity sensor
3	CK	Time line, connect with the yellow line on the temperature sensor&humidity sensor
4	3V	Power supply line, connect with the red line on the temperature&humidity sensor

2.5 Temperature sensor interface

Only support ONBON temperature sensor, below is the specification:

Number	Name	Description
1	GD	Ground line, connect with the black line on temperature sensor
2	DA	Data line, connect with the yellow line on temperature sensor
3	3V	Power supply line, connect with the red line on the temperature sensor

Check the connection below :



2.6 Ethernet interface

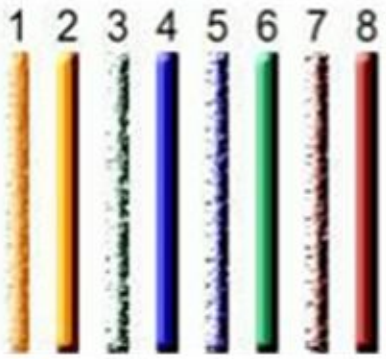
It's RJ45 Ethernet interface, connect the Ethernet port of PC by Ethernet line(or the Ethernet port of router & switchboard). There are two lines of Ethernet line: Direct connection and Cross connection, the controller supports both of them. Making method:

Direct line coneection:

Cascade of concentrator(Switchboard)

Server --- Concentrator(Switchboard)

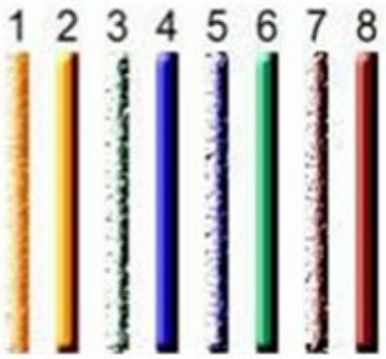
Concentrator(Switchboard) --- PC



1. White Orange
2. Orange
3. White Green
4. Blue
5. White Blue
6. Green

8. Brown

From Left to Right side



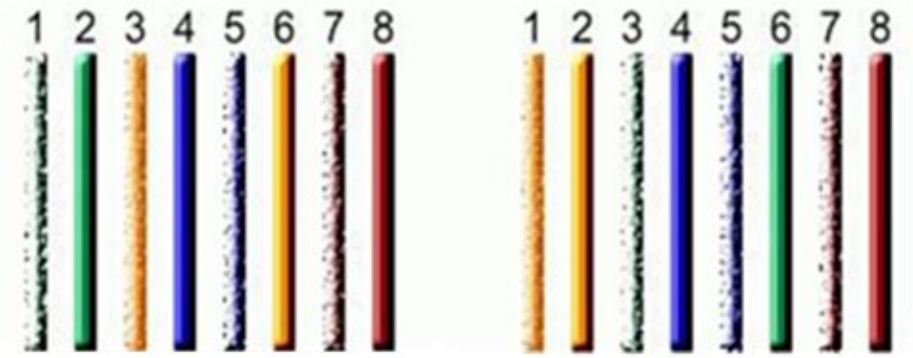
1. White Orange
2. Orange
3. White Green
4. Blue
5. White Blue
6. Green
7. White Brown
8. Brown

From Left to Right side

Cross line connection: P C --- P C

Concentrator --- Concentrator

Switchboard --- Switchboard



1. White Green
2. Green
3. White Orange
4. Blue
5. White Blue
6. Orange
7. White Brown
8. Brown

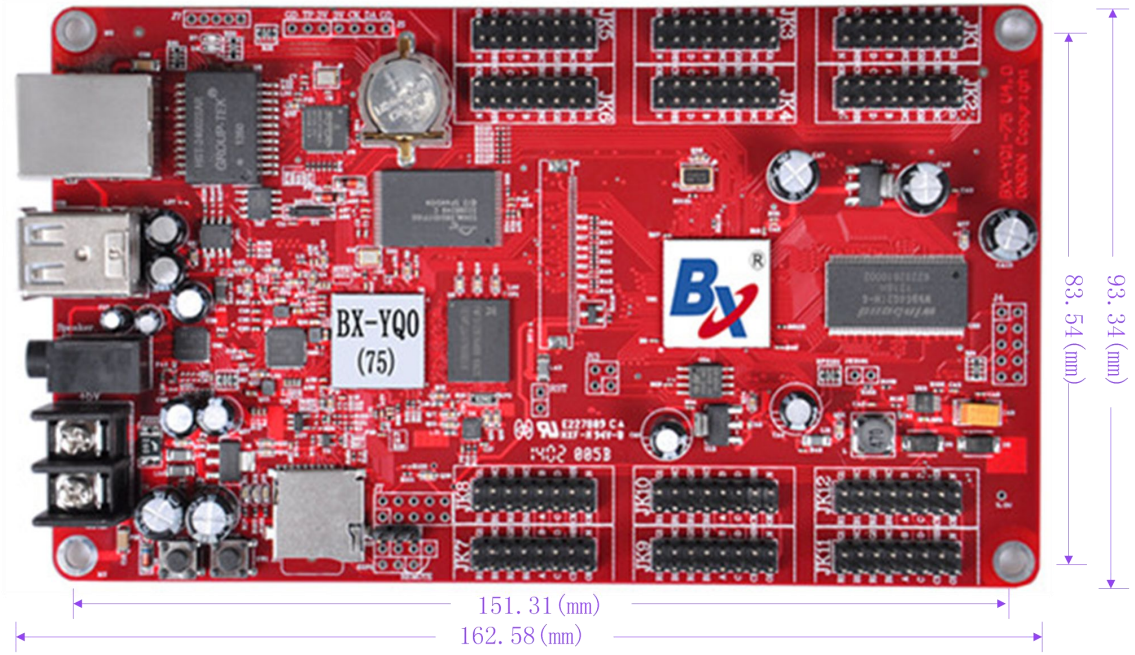
From Left to Right side

1. White Orange
2. Orange
3. White Green
4. Blue
5. White Blue
6. Green
7. White Brown
8. Brown

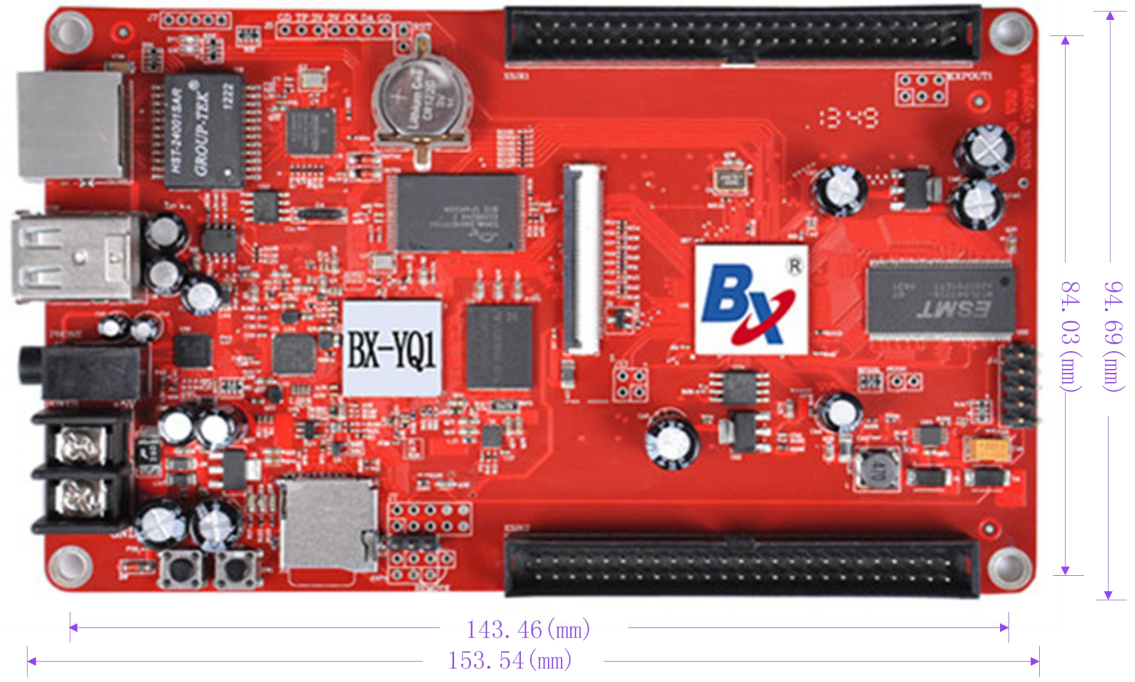
From Left to Right side

3. The specification of controller

3.1 BX-YQ0/BX-YQ1-75 specification

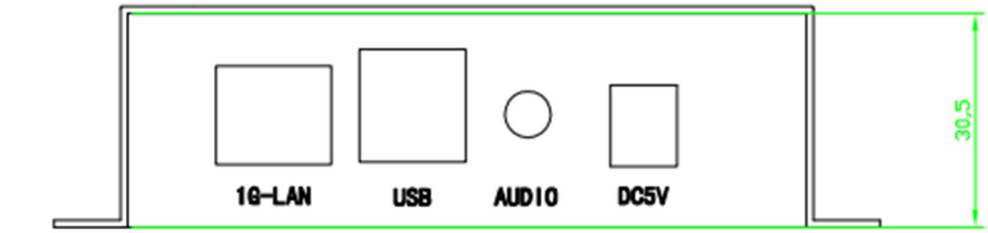


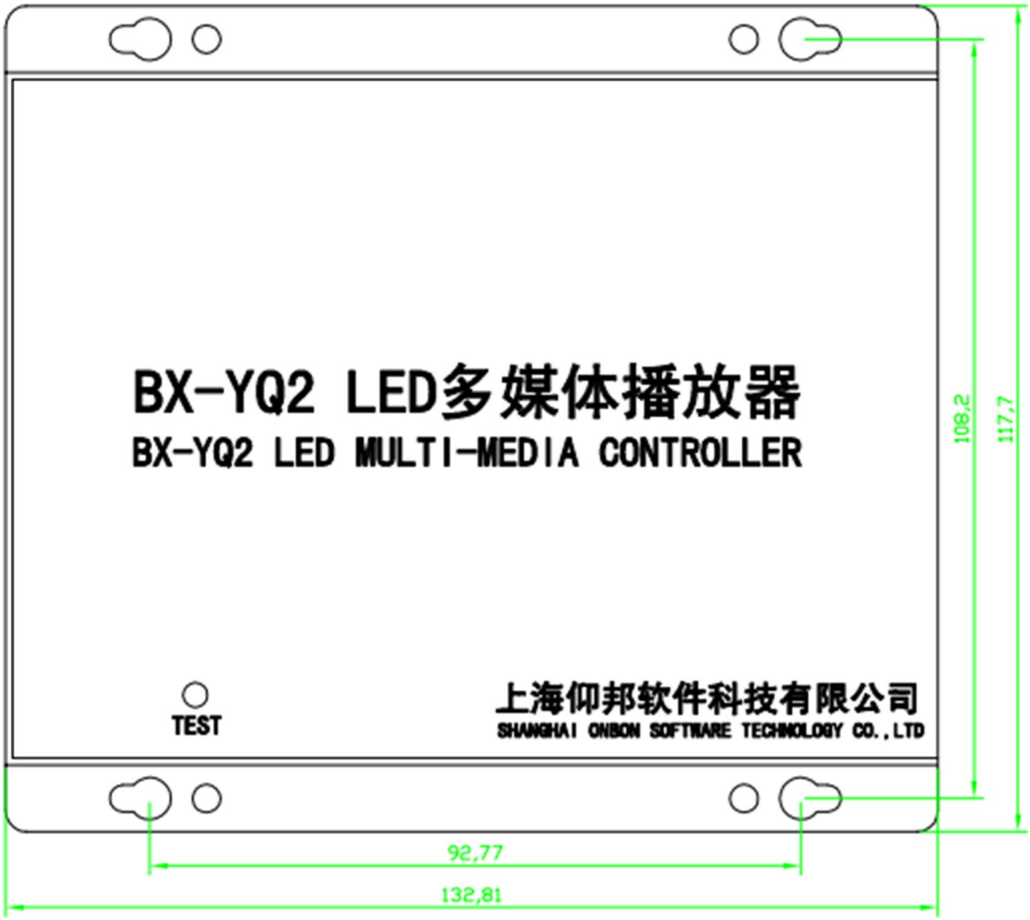
3.2 BX-YQ1 specification



3.3 BX-YQ2 specification

Unit: Millimeter





4. DC characteristic

Input voltage: 4.5V~6.5V, suggest you give power supply singly.
Working electric current: ≤900 mA
Power: ≤4W

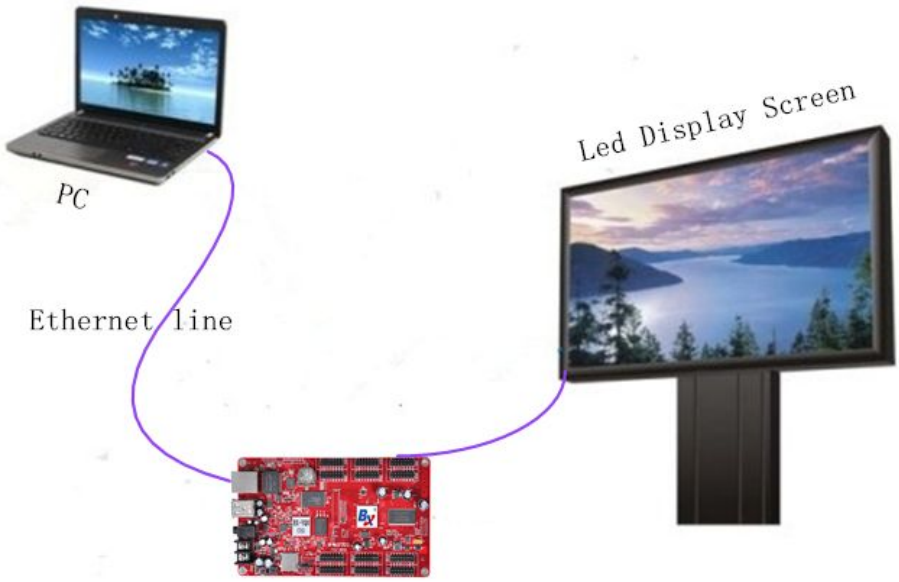
5. Steps

The using steps is only for customers to get familiar with our controllers fastly, but not give detailed description of the functions.

5.1 Connect controller and computer

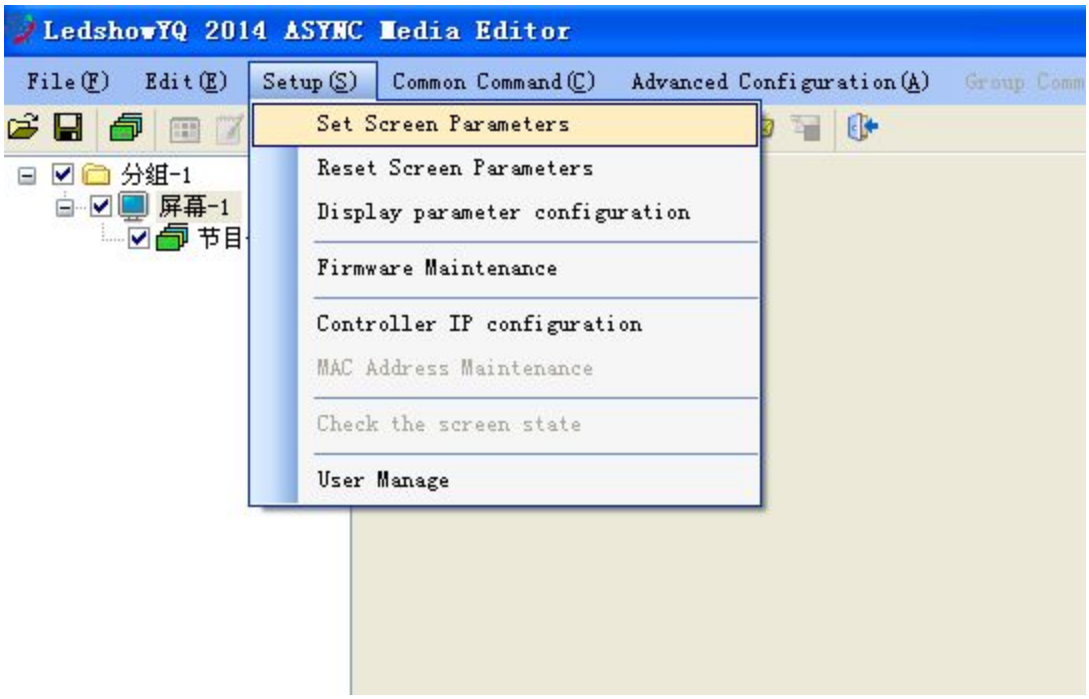
Connect controller and computer by Ethernet line, please ensure the quality of your Ethernet line. The making method of Ethernet line, please check " Ethernet interface ".

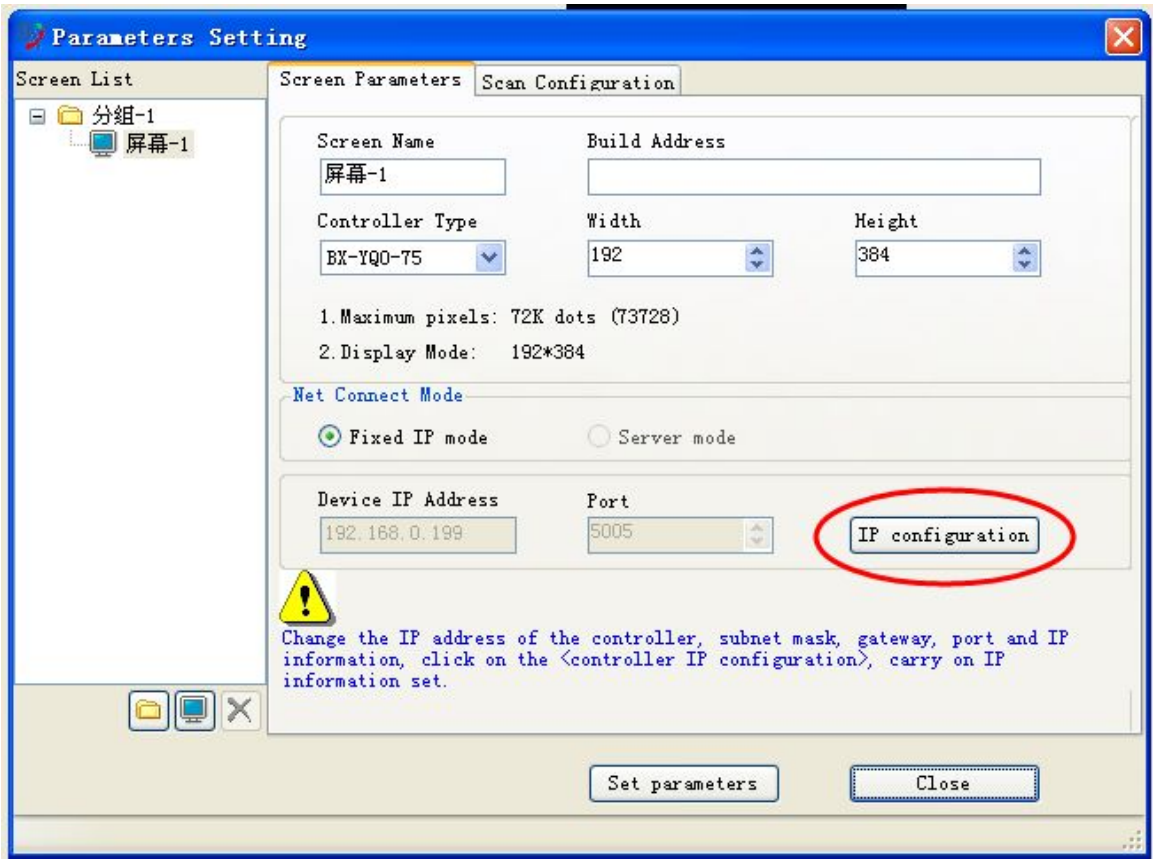
BX-YQ series controller supports direct link, and also by switchboard as to form a cluster management system. After connection, supply 5V power to the controller, check and ensure that the connections are correct, then, start controller.



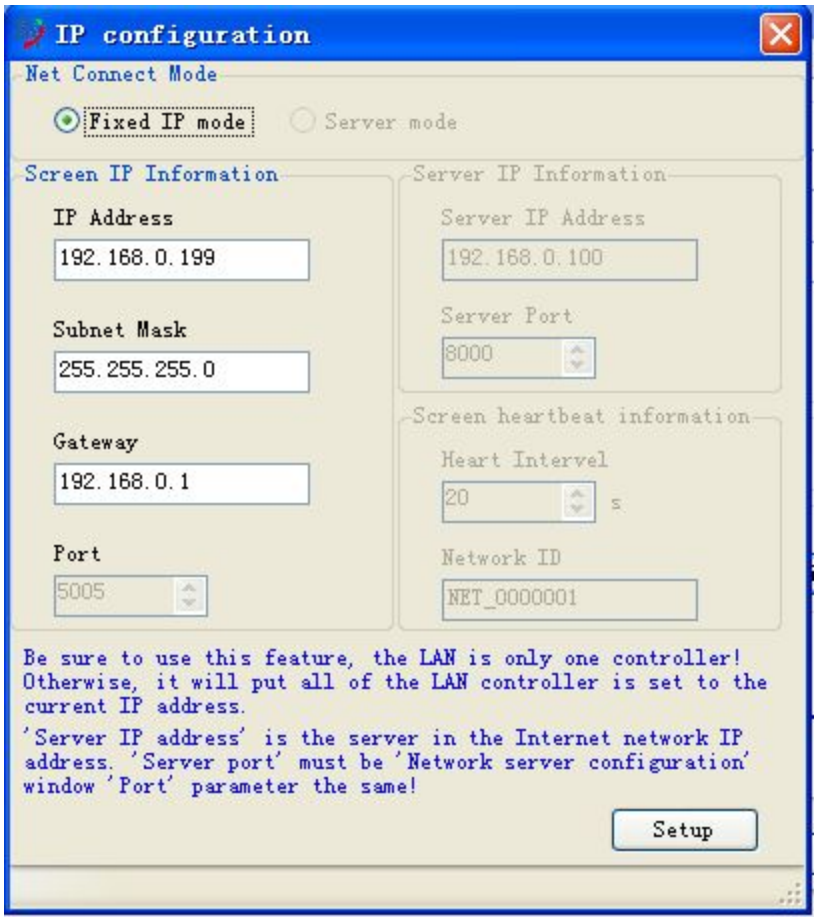
5.2 Setup controller IP address

Open "LedshowYQ 2014", click " setup" -- "set screen parameters", input " 888 " as to setup the screen parameters.





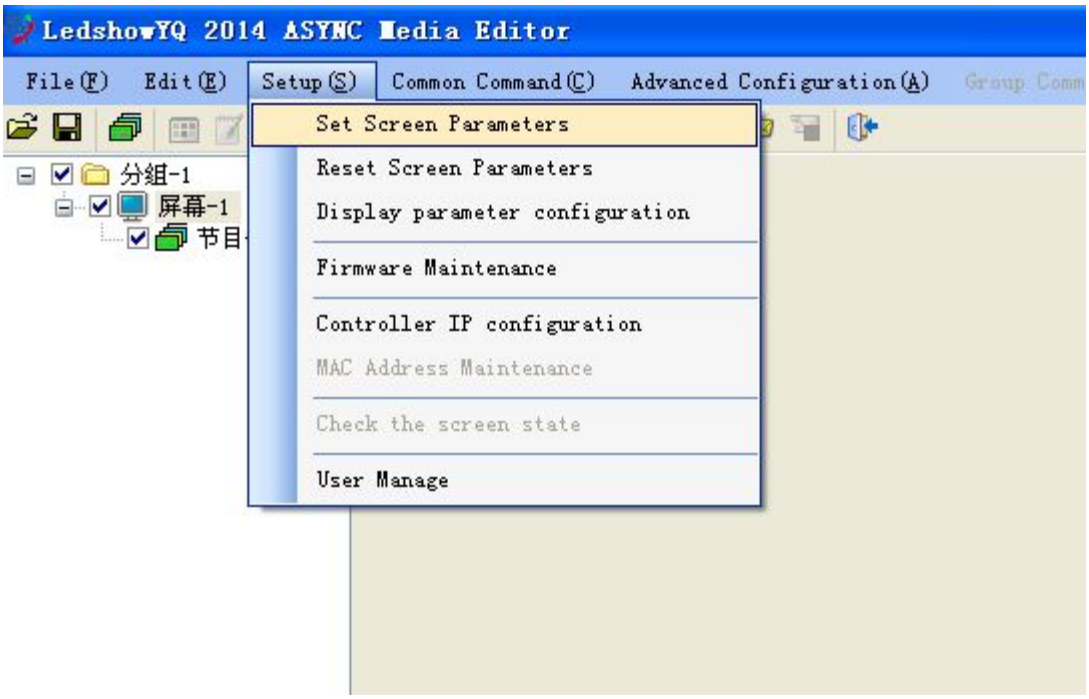
Click “ IP configuration “ :

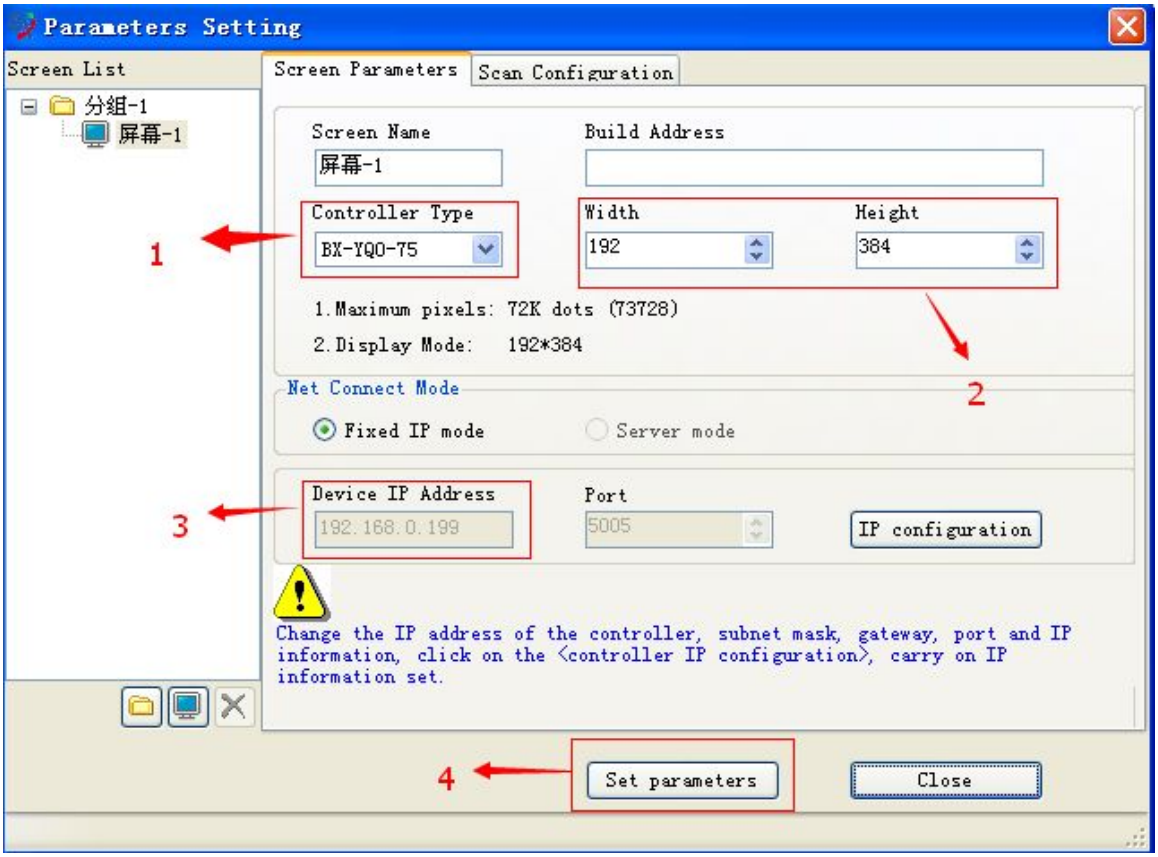


The default IP of controller is “192.168.0.199”. If it’s by direct link, without router, then, the IP of controller and PC should be on the same network, or it will be failed. And if it’s failed because of the IP setting, then reset IP address, it will get OK.

5.3 Set Screen Parameters

Open “ LedshowYQ 2014”, click “ setup” -- “ set screen parameters”, input “ 168”.





Following is the set steps:

Step 1: Select the correct controller model, usually, if your connection is right, the PC software could identify the controller model automatically, under this circumstance, you do not need to select manually.

Step 2: Input the correct height and width pixels according to your screen.

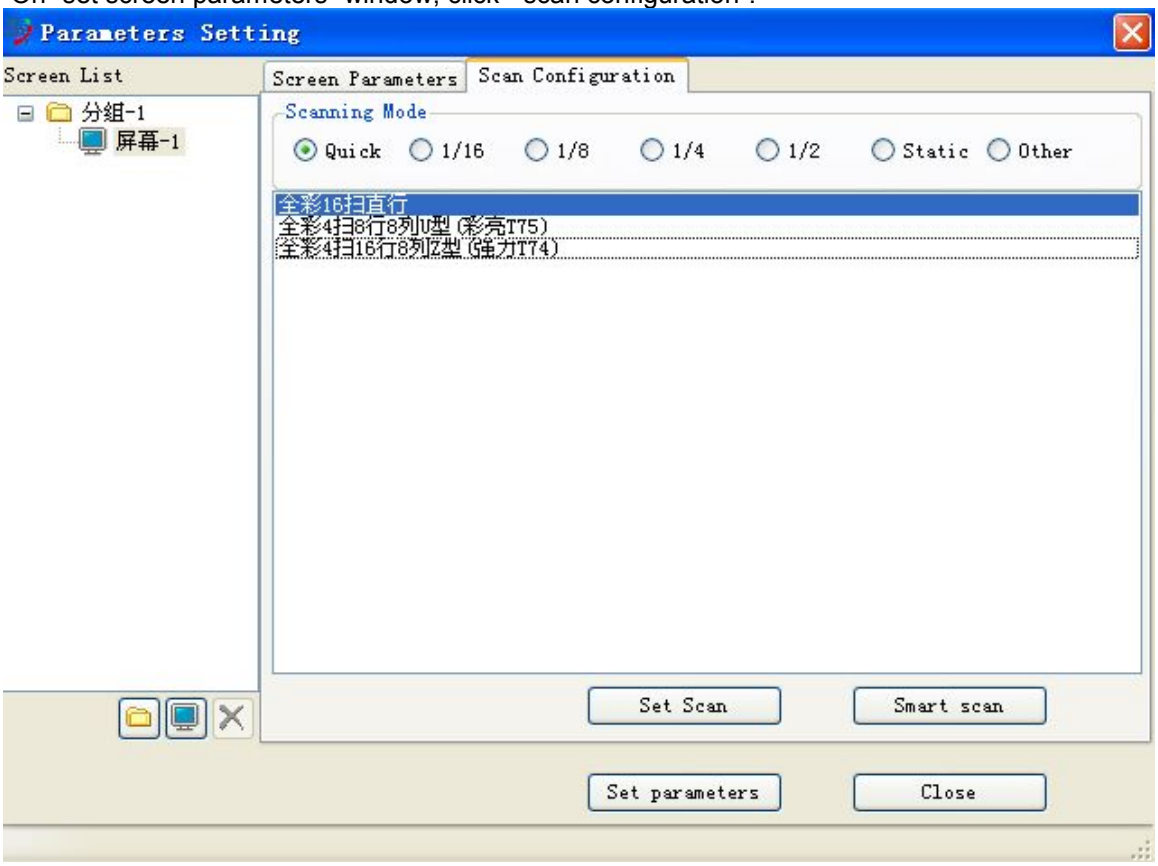
Step 3: Select the correct communication mode and configure the correct interface parameters. And IP address should be the same with the one you contribute to the controller.

Step 4: Click “ set parameters”

Now, you finished all the steps of set screen parameters. You could check the screen now, it should show “ Add programs” or something about it. You need to check that the font showed on the screen is normal, if not, you need to reset the scan mode.

5.4 Scan Configuration

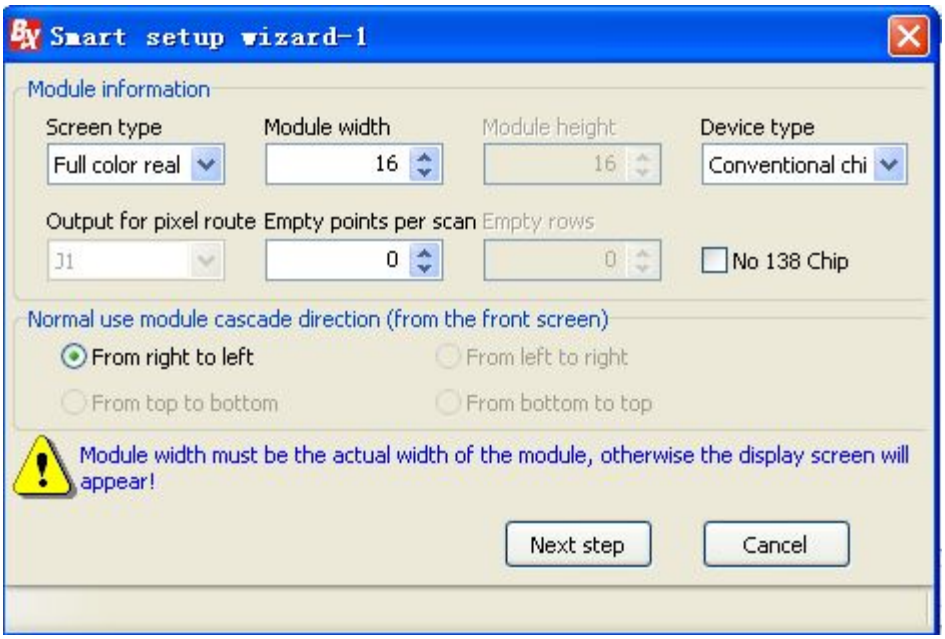
On “set screen parameters” window, click “ scan configuration”:



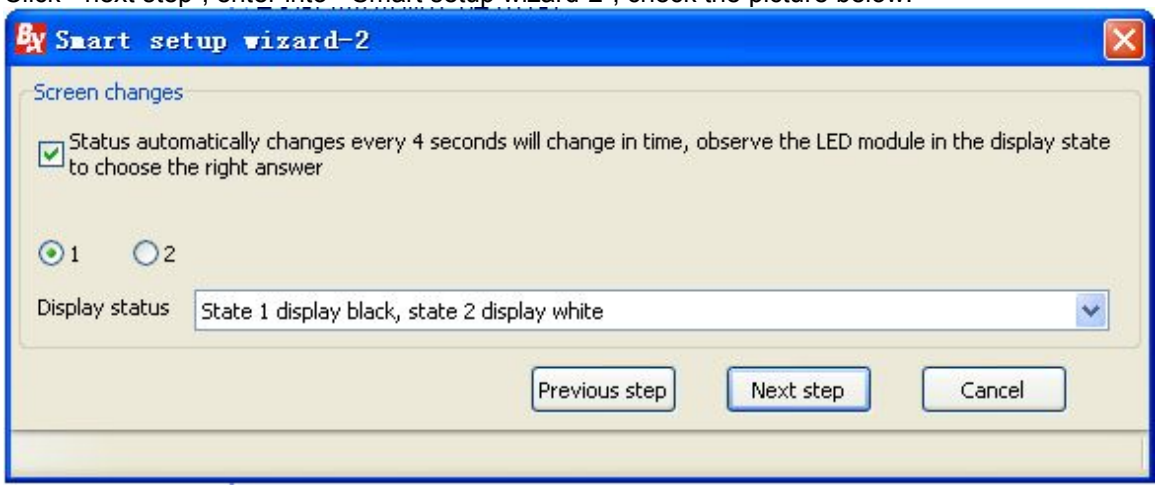
On the scan mode, if you the one in our software can not correspond with your module, you need to do “smart scan”, if can, you could choose it and set.

5.5 Smart Scan configuration

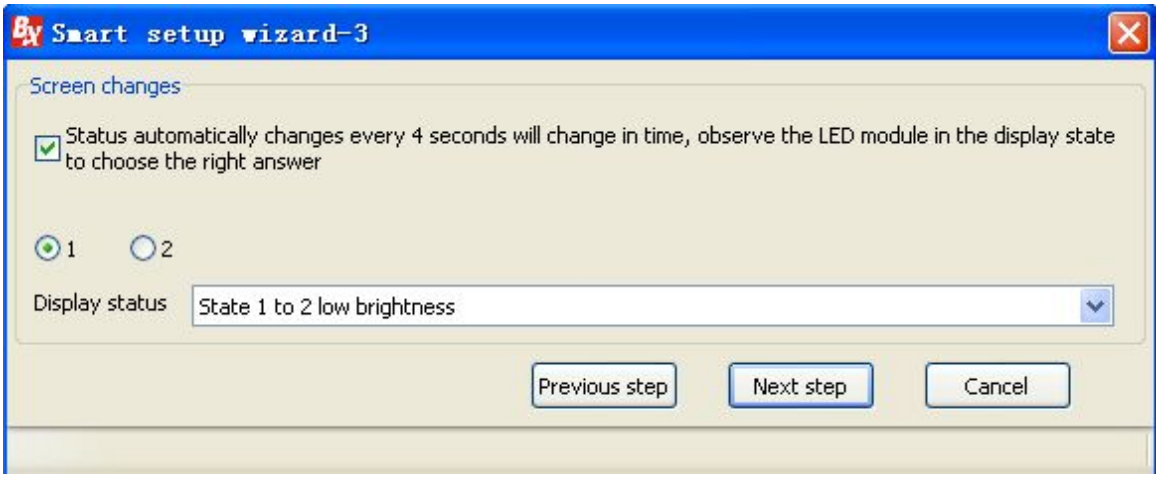
Click “ Smart scan”, enter” Smart setup wizard-1”, check the picture below. You could set module width, driver chip, scan point outlet, with or without138, cascade direction, etc. You need to set it according to your modules.



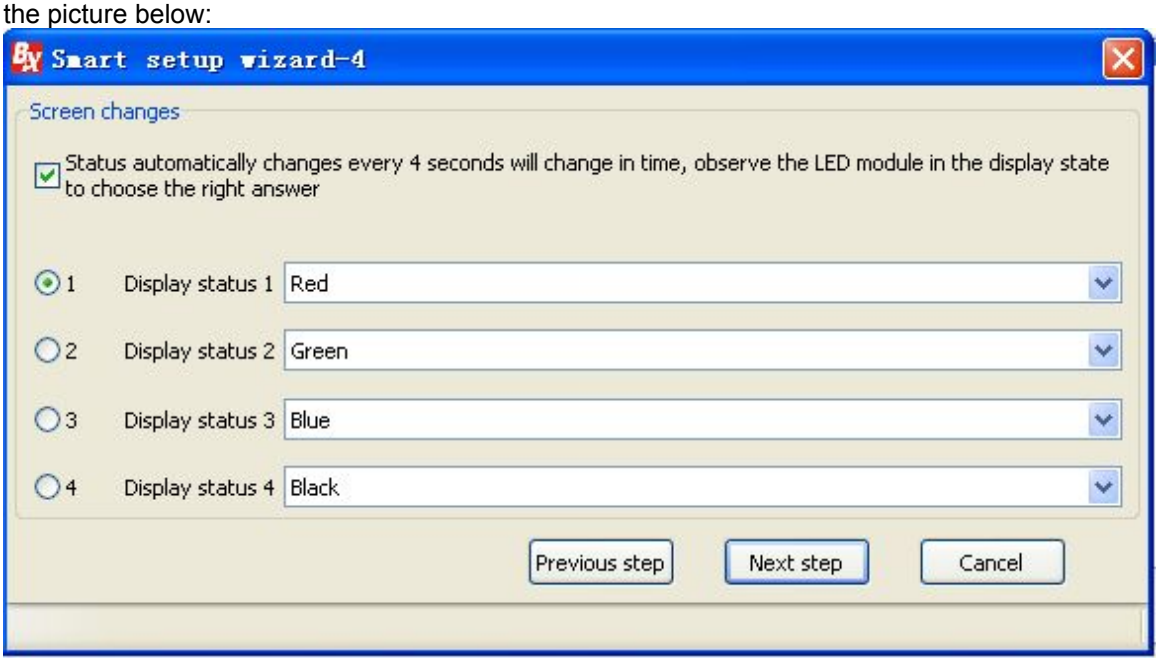
Click " next step", enter into " Smart setup wizard-2", check the picture below:



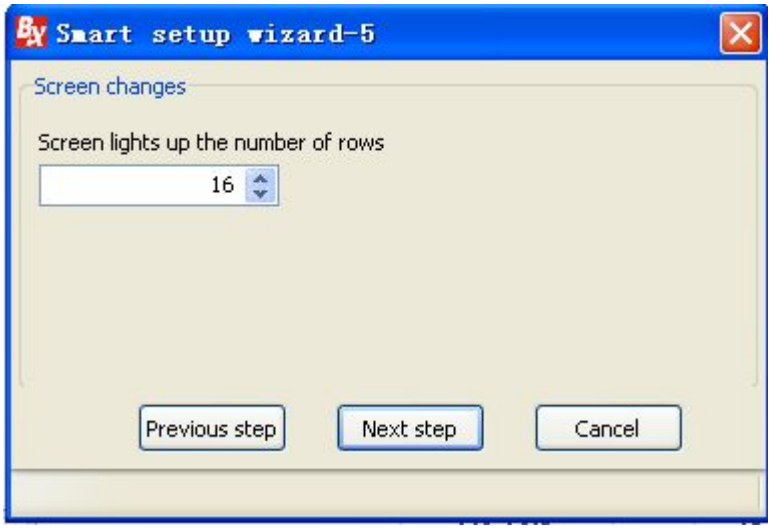
Select the correct display status, click " next step ", enter into " Smart setup wizard-3", check the picture below:



Select the correct display status, click “ next step “, enter into “ Smart setup wizard-4”, check the picture below:

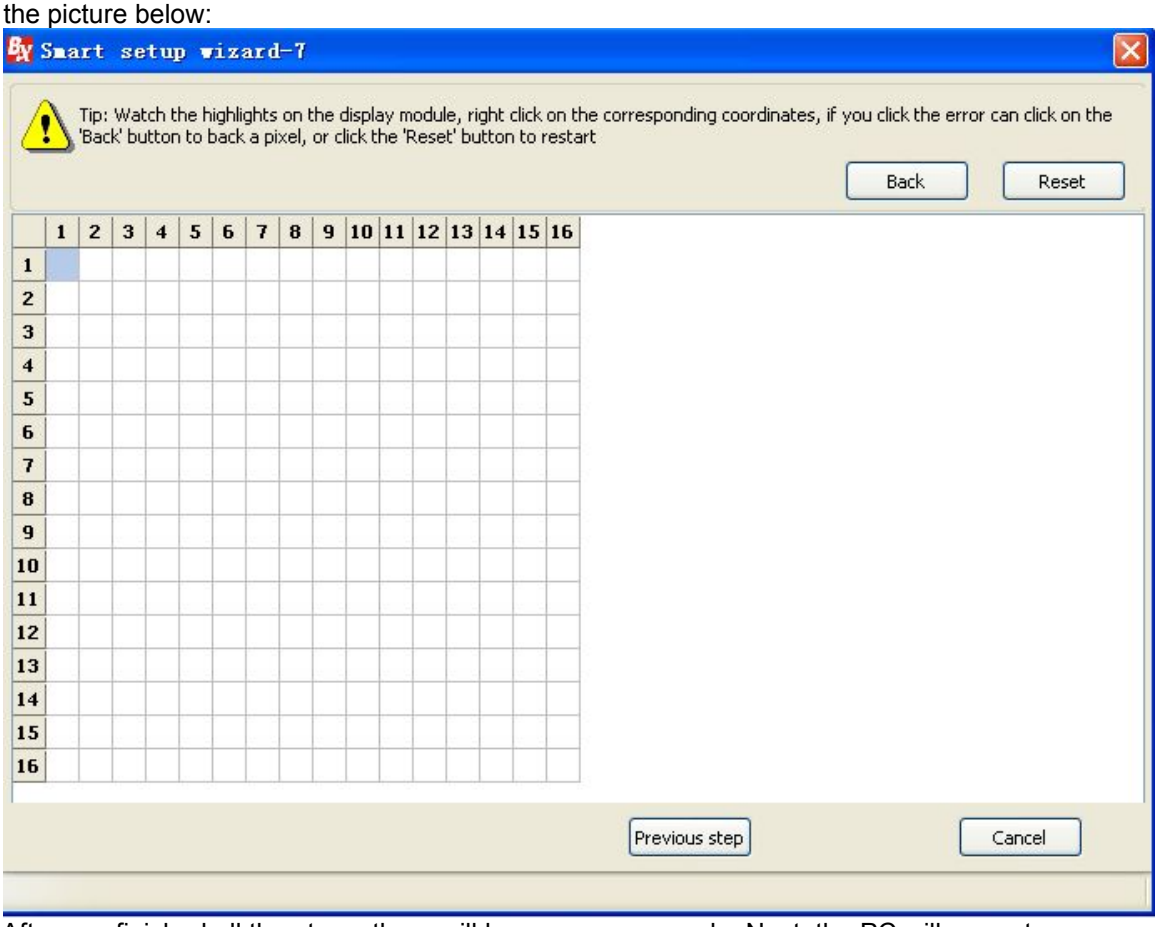


Select the correct display status, click “ next step “, enter into “ Smart setup wizard-5”, check the picture below:



Select the correct display status, click “ next step “, enter into “ Smart setup wizard-6”, check the picture below:

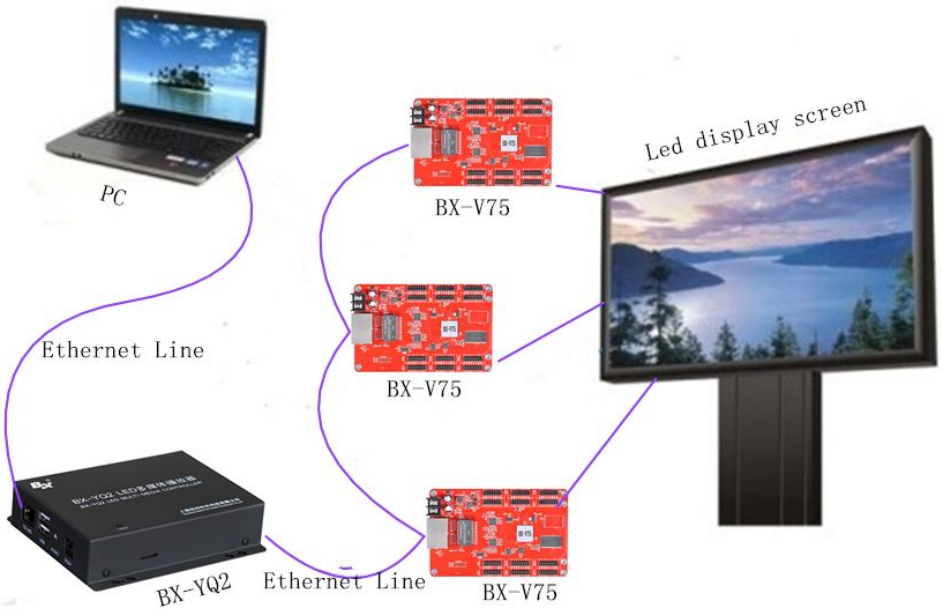
Select the correct display status, click " next step ", enter into " Smart setup wizard-7", check the picture below:



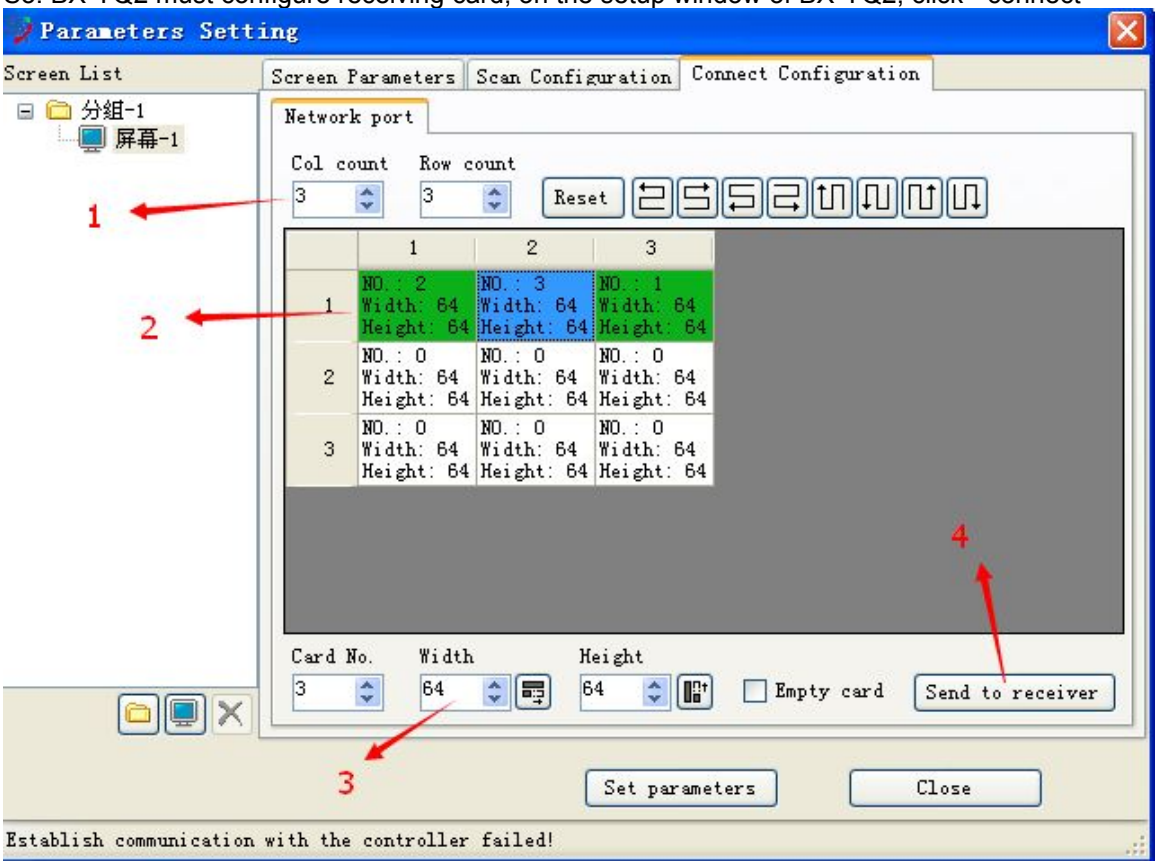
After you finished all the steps, there will be a new scan mode. Next, the PC will prompt you that send the scan configuration to controller.

5.6 BX-YQ2 receiving card setup

BX-YQ2 need to connect full color receiving card BX-V75, drive led screen through receiving card, below is the construction:



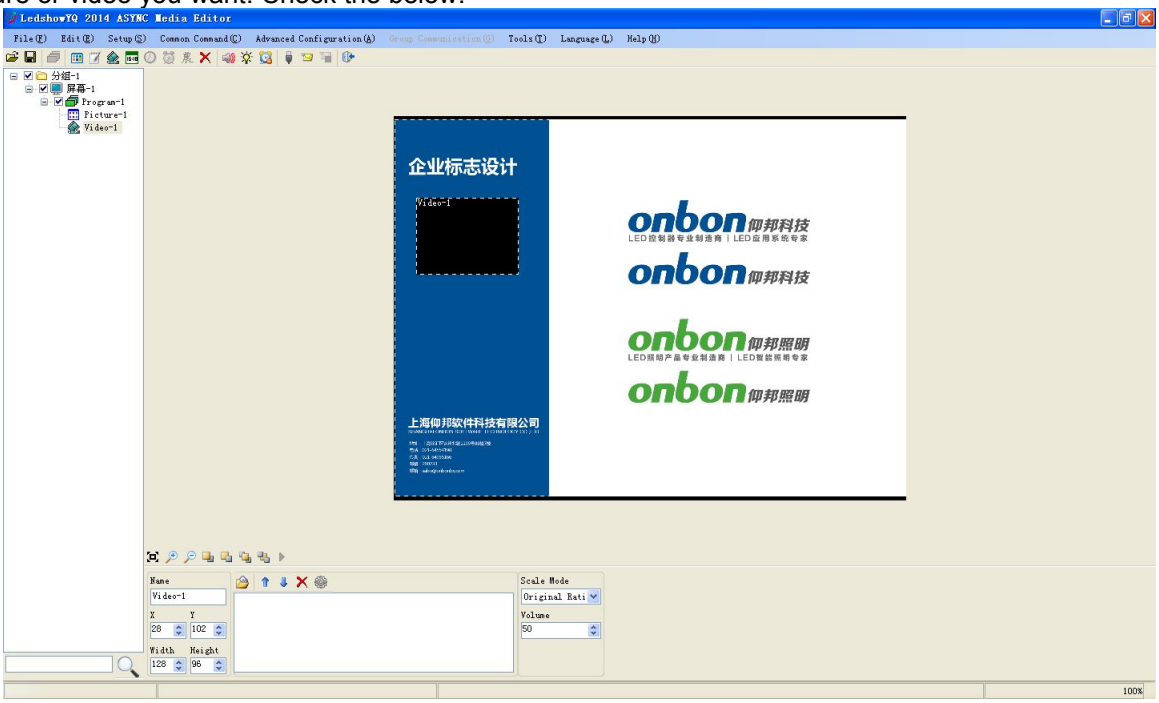
So. BX-YQ2 must configure receiving card, on the setup window of BX-YQ2, click " connect



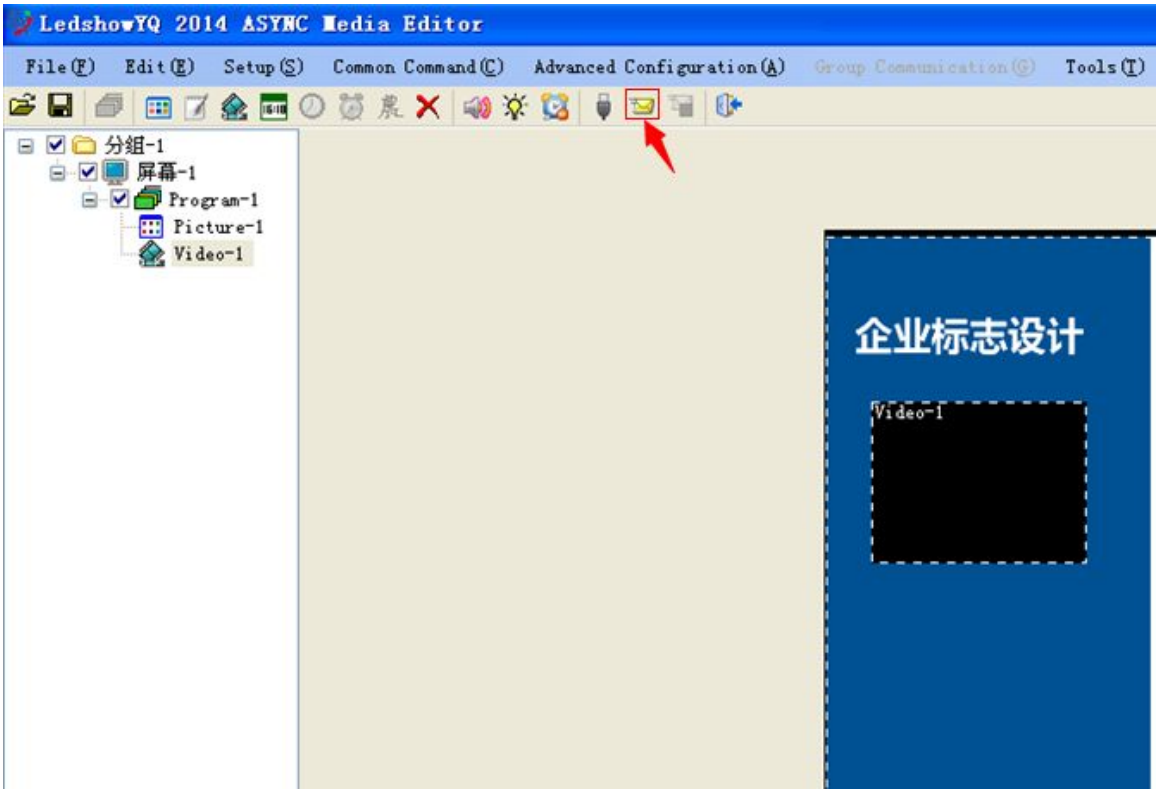
Step 1: Input the correct cards quantity horizontally and vertically according the actual quantity you use on the screen;
Step 2: Select the right location of receiving cards according to the order of receiving card, and single click;
Step 3: Set the height and width pixels of your receiving card;
Step 4: Click " Send to receiver". Finished all the configurations of receiving card.

5.7 Edit and Send programs

Open " LedshowYQ 2014", choose " program 1" on the left side, --- click " graphic " button on the tool bar as to add a graphic area,--- click "video" button as to add an "video"area. Import the picture or video you want. Check the below:

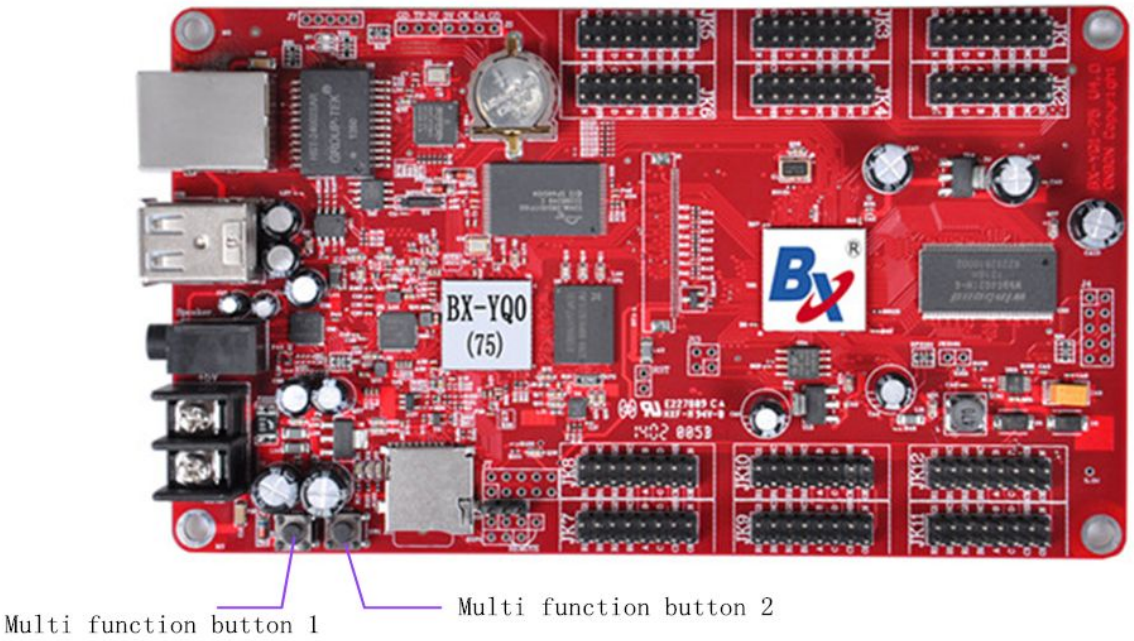


Click "send" as to send the present programs


LedshowYQ 2014 ASYNC Media Editor
File(F)
Edit(E)
Setup(S)
Common Command(C)
Advanced Configuration(A)
Group Communication(G)
Tools(T)
分组-1
屏幕-1
Program-1
Picture-1
Video-1
企业标志设计
Video-1

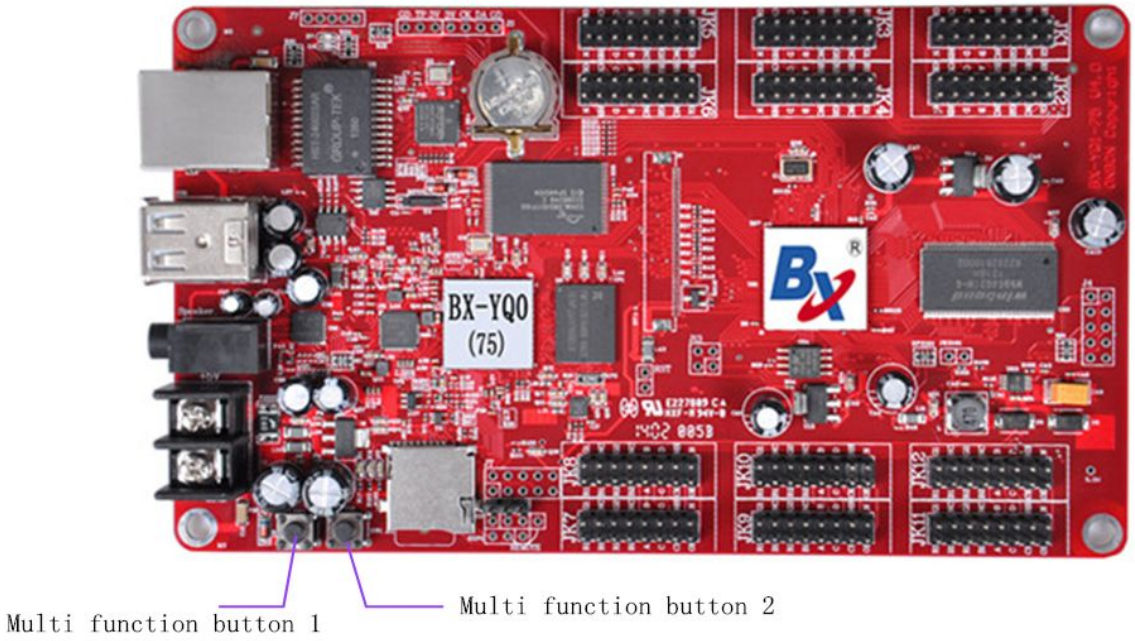
6. Factory reset

Customers could reset the BX-YQ controller to factory firmware. If users find that the present firmware is unusual, or find there are some functions lost when updated the firmware, you could do factory reset, then, you need to reset the parameters of the controller. Method: press Multi function button, last about 10 seconds, until the indicator D8 re flash.



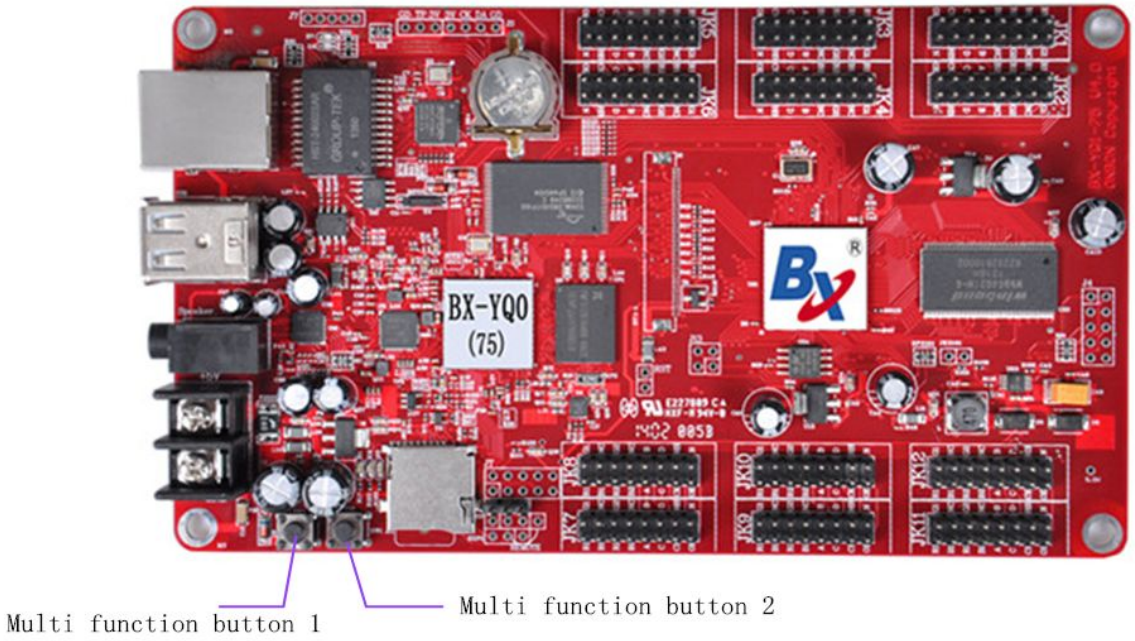
7. Test led display screen

You could enter into test display screen mode by double clicking Multi function 1. Then, there will be kinds of testing window on the screen. Under the testing mode, single click Multi function 1, could switch the testing window; Double click Multi function 1, exit this testing mode.



8. Select playing programs by button

Double click Multi function 2 could enter into this mode. Under this mode, single click Multi function 2 could select the next program, could also circulate play the programs. Double click Multi function 2 could exit this mode.



8.1 Stoppage

The indicator light is D8 and D9:

Number	The action of the indicator light	Specification
1	D8 flash	Normal
2	D9 always light	SD card gets trouble
3	D9 flash	U/Flash disk upload the programs

8.2 FAQ

Number	Phenomenon	Solution
1	Power supply indicator light does not work	Check the connection of power supply, measure the voltage of power supply, with normal voltage.
2	Status light D8 does not flash	Check the power supply, and check the connection of modules and the accessories. Get power supply again.
3	Communicate with software failed	Check the parameters setting on the software, check the communication line, and check the communication interface on PC.
4	Controller time error	Open software, correction time again.
5	Cannot save the time after correction time	Change RTC button battery.
6	Data of Temperature and Humidity sensor is not correct	Check the connection of temperature & humidity sensor.
7	Status light D9 always light	Change SD card.

9. Notes

- BX-YQ series, by 5V power supply, do not mix the positive and negative side;
- Give power supply to controller singly, try to avoid using same power supply with led screen
- When plug in SD card, do not get power supply
- Do not fall or throw the controller
- When plug Ethernet or 50PIN row cable, do not get power supply
- Put the controller to dry and cold place

10. Contact us

Shanghai ONBON Software Technology Co.,ltd
ADD: Floor 7, Tower88,1199#, North Qinzhou Road, Xuhui District, Shanghai, China
Phone: 021-64955100
FAX: 021-64955166 Post code: 200233
Web: http://www.onbonbx.com http://onbonbx.en.alibaba.com
Email: onbon@onbonbx.com